

with chromosome 3 and/or chromosome 17 in humans, said method comprising contacting said interphase chromosomal material with a unique sequence high complexity nucleic acid probe of greater than about 50,000 bases, wherein the chromosomal material is present in a morphologically identifiable [chromosome or] cell nucleus; allowing said probe to bind to said targeted interphase chromosomal material; and detecting said bound probe, wherein bound probe is indicative of the presence of target interphase chromosomal material.

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#### REMARKS

Entry of the foregoing, and further and favorable reconsideration of the subject application pursuant to and consistent with 37 CFR 1.112 is respectfully requested.

By the present amendment, claims 1, 48, and 50 have been amended to delete the recitation that the interphase chromosomal material recited in the claims is present in a morphologically identifiable chromosome. No new matter has been added.

Turning now to the Official Action, claims 1, 48, and 50-58 are rejected under 35 USC 112, second paragraph, as purportedly indefinite. This rejection, to the extent that it applies to the claims as amended, is respectfully traversed.

The Examiner asserts at page 3 of the Official Action that the recitation in the claims that the chromosomal material is "present in a morphologically identifiable

chromosome" is incompatible with the limitation that the cells are in interphase. Without conceding to the Examiner's arguments, but solely in an effort to expedite prosecution, claims 1, 48, and 50 have been amended to delete the recitation of morphologically identifiable chromosomes. In view of these amendments, withdrawal of this rejection is respectfully requested.

Claims 1, 48, and 50-58 are rejected under 35 U.S.C. §103(a) as purportedly obvious over U.S. Patent 4,710,465 to Weissman et al., taken in view of Lichter et al. (*PNAS* 85:9664-9668, 1988) and further in view of Le Beau et al. (for chromosome 17 targets) and Drabkin et al. (for chromosome 3 targets). This rejection is respectfully traversed.

The present application claims priority from U.S. Application Serial No. 06/819,314, filed January 16, 1986, and U.S. Application Serial No. 06/937,793, filed December 4, 1986. Both of these applications were filed before the publication of the Lichter et al. article in December, 1988, and before the filing of the Croce application on July 3, 1989. Accordingly, the Lichter publication is not properly cited as prior art against the present application. As the Examiner has conceded that the present claims are not *prima facie* obvious over the Weissman patent alone, Applicants maintain that a *prima facie* case of obviousness has not been made out.

However, the Examiner argues that the present claims are not supported by Applicants' 1986 priority applications, but only by Application Serial No. 07/382,793,

filed July 19, 1989. Specifically, at page 3 of the Official Action, the Examiner asserts that the disclosure of the parent applications "lacks the specific citation of chromosomes 3 and 17 and particular functional embodiments and therefore priority is deemed to be lacking in said parents." However, Applicants maintain that support for the recitation that the genetic rearrangement is associated with chromosome 3 and/or chromosome 17 is implicit in the description that the staining reagents useful in the invention are specific to single chromosomes at page 11, lines 1-5 of Application Serial No. 06/937,793 and at page 10, lines 17-21 of Application Serial No. 06/819,314. One skilled in the art would understand the generic description of staining targeted chromosomal material to detect genetic rearrangements to describe each of the chromosomes, including chromosomes 3 and 17, as being the targeted material.

In view of the fact that support may be found in the instant application, which is identical to the series of applications from which priority is claimed as a divisional and continuation, and support may be found in the 06/937,793 and 06/819,314 applications filed in 1986 from which priority is claimed as a continuation-in-part, Lichter et al published in 1988 is not a proper prior art reference. The combination of Lichter et al with Weissman is thus improper. Consequently, the presently claimed invention cannot properly be held to be *prima facie* obvious over Weissman in view of Lichter, Le Beau, and Drabkin. Withdrawal of this rejection is thus respectfully requested.

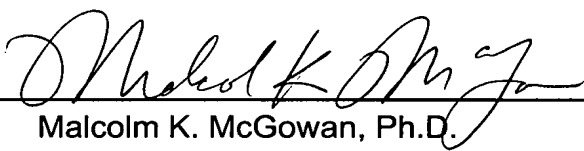
Claims 1, 48, and 50-58 are provisionally rejected under the judicially-created doctrine of obviousness-type double patenting as purportedly obvious over claims 1 and 48-50 of application Serial No. 08/487,387. Without conceding to the merits of the present rejection, but solely in an effort to expedite prosecution, Applicants hereby express their willingness, upon the allowance of any of the overlapping claims in either application, to file a Terminal Disclaimer in the other case.

Further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such action is earnestly solicited.

In the event that there are any questions relating to this response, or to the application in general, the Examiner is respectfully requested to telephone the undersigned so that prosecution of this application may be expedited.

Respectfully submitted,

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